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CONTROLLED SUBSTANCES TRAINING MANUAL	Effective Date: 21-October-2005

### 1 INTRODUCTION

### 1.1 Purpose And Scope

- 1.1.1 The purpose of this manual is to provide a uniform coordination of the training of forensic drug chemists employed by the Commonwealth of Virginia. This work is intended to be used in a formal training program that will establish a certain minimum standard of professional competency throughout the statewide branches of the Division of Forensic Science.
- 1.1.2 Certain inherent qualities of drug evidence prohibit the establishment of a rigid set of standard procedures to cover each and every case. Therefore, enough latitude has been given to allow for independent thought and individual freedom in selecting alternative courses of action. Upon completion of this course the trainee will be thoroughly familiar with the options available to handle most pieces of evidence that will be encountered.
- 1.1.3 The sequence in which the tasks are presented in the outline should not necessarily be considered as a mandatory order of instruction. Exposure to legal aspects and testimony will be continuous throughout the training.

# 1.2 Coordination Of The Program

- 1.2.1 Unless otherwise designated by the Section Chief, the Training Coordinator (TC) will be the Section Supervisor in each lab. In any event, the TC will be a capable senior Forensic Scientist.
- 1.2.2 The coordinator will be responsible for the overall training, but may delegate certain duties and blocks of instruction to other chemists.
- 1.2.3 Any inter-laboratory training should be arranged through the appropriate coordinators.

### 1.3 Training Period

- 1.3.1 The length of the training period is a highly variable matter and will be left to the determination of the Section Chief. Certain individuals may require less time than others, depending on experience, education, or learning ability. However, the training period should require a minimum of 6 to 9 months, which is to include successful completion of mock trials.
- 1.3.2 The training of a new chemist will be broken into two phases: Marijuana Analysis and Drug Analysis.
  - 1.3.2.1 The first phase, Marijuana Analysis, will ensure that the trainee is qualified to analyze marijuana cases and issue reports. This section will include the successful completion of Sections 2 and 5-9 from this Training Manual. Completion of Marijuana Analysis should be no later than three months after the trainee has entered the program.
  - 1.3.2.2 The Drug Analysis phase includes the completion of Sections 4, and 10-20 from this Training Manual.
- 1.3.3 Throughout the training period, the trainee will assist with casework, only under the direct supervision of a qualified examiner to familiarize the trainee with different forms of case evidence, packaging, applied analytical techniques and note-taking.

## 1.4 Location Of Training

1.4.1 Whenever practical, the bulk of an individual's training will occur in the lab to which they will be assigned.

# 1.5 Training Goals

1.5.1 The training should culminate so that the trainee has the following:

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- The knowledge of the basic chemistry, pharmacology and scheduling of controlled substances.
- The knowledge of the principles and practices of forensic analytical chemistry related to the analysis of controlled or commonly abused substances.
- The knowledge of the theory and applications of the variety of instrumentation and specialized techniques used to analyze controlled substances.
- The ability to perform accurate forensic analysis independently and proficiently.
- The ability to skillfully present and defend analytical findings in courts of record.

#### 1.6 Instructions to the Trainee

- 1.6.1 The trainee is expected to keep a loose-leaf notebook of information compiled on the form in Appendix A for the drug knowns listed in Appendix B. This will be completed during Sections 4, 11 and 12. This notebook will be checked by the training coordinator upon its completion.
- 1.6.2 The written answers to the study questions listed in each section will be used as reference material once the trainee is qualified as an examiner. Therefore, references are to be listed for each answer whenever possible. The completed study questions are to be turned into the training coordinator as scheduled. A list of useful references has been provided in the Reference sections.
- 1.6.3 References listed as "Required Reading" are required for an adequate understanding of the subject matter. Required readings are designated by section numbers listed after the assignment.
- 1.6.4 The trainee will assist with casework throughout the training, only under the direct supervision of a qualified examiner.
- 1.6.5 The trainee should provide a weekly written progress report to the TC.

### 1.7 Instructions To Training Coordinators

- 1.7.1 As previously stated, the intent of the manual is to provide a guide that will insure each and every trainee of receiving certain basic principles and fundamentals necessary to the complete education of a forensic drug chemist. All of the listed topics must be incorporated into the program. Some of the topics will strongly suggest an order of events and this ranking should be followed. Any significant deviation from the manual must be cleared first with the Section Chief.
- 1.7.2 The performance of the trainee will need to be evaluated during the course of the program. The TC must submit regular written evaluations of the new chemist's progress to the Section Chief. The coordinator is to discuss this evaluation with the trainee prior to forwarding it to the Section Chief. Any comments by either the trainee or coordinator are to be included with the report.
  - 1.7.2.1 The report should include both previous accomplishments and future objectives.
  - 1.7.2.2 These reports should also include information from mock cases and unknowns given to and analyzed by the trainee. A list of the expected results and the actual results will be included.
  - 1.7.2.3 A copy of the report will be placed in the training file.
- 1.7.3 Copies of the completed study questions and written examinations should be forwarded to the section chief as the sections are completed.
- 1.7.4 The training coordinator is responsible for maintaining the Division's training program documentation during the training period. Each section in the chart in Appendix C must be initialed and dated upon completion of the specified task. If any task is not completed, for any reason, this must be explained in the training file and approved by the Section Chief.

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- 1.7.4.1 The contents of the sections may be skipped for previously trained and qualified examiners who have demonstrated to the TC a comprehensive knowledge of the section's subject matter with the approval of the Section Chief.
  - 1.7.4.1.1 The TC will submit a written recommendation to the Section Chief outlining the sections which may be omitted or modified and the justification for doing so.
  - 1.7.4.1.2 A copy of the approved recommendation will be placed in the training file.
- 1.7.4.2 Written examination questions for each section will be selected or derived from the study questions by the TC and approved by the Section Chief.
- 1.7.4.3 The written examination will be given in a "closed book" format.
- 1.7.5 If the trainee cannot meet the criteria expected of them during the period allowed for training, then steps must be taken to effect appropriate action.

#### 1.8 Mock Trials

- 1.8.1 The TC is responsible for ensuring that the trainee is thoroughly prepared for legal questioning. This can be done by a combination of mock trials, prearranged as well as impromptu question and answer sessions, and observation of courtroom testimony given by experienced examiners.
- 1.8.2 The scheduling of practice mock trials is to be done by the TC. These are to be conducted throughout the training period.

# 1.9 Guidelines For the Competency Examination

- 1.9.1 A competency examination will be conducted following the successful completion of the marijuana and drug analysis blocks of instruction. The case samples will be fabricated so that the TC knows the correct answers. The fabricated case thus serves as a monitor of the trainee's competency in applying techniques and procedures to actual casework samples.
- 1.9.2 Prior to the final mock trial, a technical oral examination of the trainee will be conducted by the Section Chief, Division management and the TC to ascertain the technical knowledge of the individual. This will be limited to three (3) hours.
- 1.9.3 It is expected that the chemical structures of any drugs and reagents utilized in the final mock case be known and understood by the trainee.
- 1.9.4 After the examination, supervision/management will assess the trainee's performance.
- 1.9.5 The outcome of the examination will be:
  - 1.9.5.1 Satisfactory
  - 1.9.5.2 Not satisfactory
    - 1.9.5.2.1 If the panel determines that the trainee's performance was not satisfactory, steps must be taken to effect the appropriate action.
- 1.9.6 A taped final mock trial will follow the successful completion of the technical oral examination. The Section Chief must agree with the selection of all participants for the trial.
- 1.9.7 The atmosphere of the final mock trial will be formal. That is, it will be conducted in the same manner as a real

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courtroom situation. This includes conduct, protocol, and all other aspects. Answers and explanations are to be directed to a lay jury.

- 1.9.8 The final mock trial will not exceed (2) hours.
- 1.9.9 The role of prosecutor will be assumed by the TC or a designee.
- 1.9.10 There may be two defense lawyers, one of whom must be a qualified drug chemist.
- 1.9.11 The trial may be stopped at any time upon the request of any of the involved parties.
- 1.9.12 After the trial, supervision/management will assess the trainee's performance.
- 1.9.13 The outcome of the trial will be:
  - 1.9.13.1 Satisfactory
  - 1.9.13.2 Not satisfactory
    - 1.9.13.2.1 If the panel determines that the trainee's performance was not satisfactory, steps must be taken to effect the appropriate action.
- 1.9.14 This evaluation will be immediately followed by a short performance critique.
- 1.9.15 The TC will review the video tape of the trial with the trainee as soon as possible. Other participants/observers should provide any comments to the TC as soon as possible.
- 1.9.16 Satisfactory performance on the entire competency examination must be achieved before the individual is qualified to perform the duties of an examiner.
  - 1.9.16.1 After satisfactory performance of the marijuana technical examination and mock trial, the trainee will be qualified to work cases involving marijuana.
- 1.9.17 The Section Chief will complete pages three and four of Appendix C of this manual as documentation.

### 1.10 Transition from Trainee to Examiner

- 1.10.1 After the new chemist has successfully completed this training, there follows a period of adjustment. The job of the coordinator is to insure that this transition from training to real life takes place as smoothly as possible. If the training coordinator is also the chemist's supervisor, it is an easy matter to monitor the work of the new person. If this is not the case, the coordinator will have to work with the person's supervisor to insure that everything is proceeding satisfactorily.
- 1.10.2 Casework will be introduced stepwise under the close supervision of a qualified senior chemist.
- 1.10.3 For a period of time all reports must be technically reviewed prior to release by the supervisor or designee. Casework should be monitored closely for at least six (6) months.
- 1.10.4 The supervisor, training coordinator, or designee will accompany and monitor the newly qualified examiner to court for the first few cases.
- 1.10.5 The new chemist will be required to evaluate the training program some time after completion. The TC, the person's supervisor, and the section chief will review the completed evaluation form and use the information to improve the training of future chemists. Appendix D can be used for this purpose. ◆ End